

Positive Reinforcement and Hand Hygiene (4/11)

Mayer J, Mooney B, Gundlapalli A, Harbarth S, Stoddard GJ, Rubin MA, Eutropius L, Brinton B, Samore MH. Dissemination and sustainability of a hospital-wide hand hygiene program emphasizing positive reinforcement. *Infect Control Hosp Epidemiol* 2011;32:59–66.

The authors measured hand-hygiene adherence in various units in a 450-bed teaching tertiary-care hospital over a six-year study period. The objective was to increase and sustain hospital-wide compliance with hand hygiene through a long-term ongoing multidimensional improvement program emphasizing behavioral factors. Key components included an educational blitz, easy access to and adoption of alcohol sanitizer, frequent feedback, and administrative support. Other aspects of the program, less commonly used by others, included a novel approach focused on behavior modification through positive reinforcement and annually changing incentives. For example, immediate positive reinforcement was given to those “caught in the act” of performing hand hygiene by passing out candy bars on the spot to them. Also, to encourage unit teamwork, a pizza party was the reward for the unit with the best hand hygiene compliance. A total of 36,123 hand hygiene opportunities involving all categories of health-care workers from 12 inpatient units were observed from October 2000 to October 2006. The rate of compliance with hand hygiene significantly improved after the intervention in two cohorts over the first year (from 40% to 64% of opportunities and from 34% to 49% of opportunities compared with the control group). Mean compliance rates ranged from 19% to 41% of 4,174 opportunities (at baseline), increased to the highest levels of 73%-84% of 6,420 opportunities two years after hospital-wide dissemination, and remained improved at 59%-81% of 4,990 opportunities during the sixth year of the program. **This interventional cohort study used a behavioral change approach and is one of the earliest and largest institution-wide programs promoting alcohol sanitizer from the United States that has shown significant and sustained improvements in hand hygiene compliance. This creative campaign used ongoing frequent audit and feedback with novel use of immediate positive reinforcement at an acceptable cost to the institution.**



DECS Comment: The study reinforces that education is a cornerstone for improvement with hand-hygiene practices and that ongoing educational and motivational activities may be needed for long-lasting improvement in hand-hygiene practices. Educational programs should address the impact of improved hand hygiene on disease transmission rates; awareness of hand-hygiene guidelines; knowledge about the low adherence rate to hand hygiene; and information about the use of hand-hygiene and skin-care protection products.

Reference

CDC. Guideline for hand hygiene in health-care settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR* 2002;51(No. RR-16).